Abstract

The central issue in tapping the potential of a distributed system is scheduling Scheduling for distributed computing system is significantly more complex than that for a single processor systems In addition to allocating the resources local to a node among the processes residing at that node, distributed scheduler controls which process resides at each node This later element of distributed scheduling is referred to as global scheduling

Due to the impact of networking the nature of computing has changed a lot it has become more I/O driven and network driven Still most of the work concentrates on global scheduling Most of the local scheduling policies look at CPU, disk, network scheduling in isolation It is more important for a scheduling policy to minimize the variance in response time than to minimize the total response time

Hence, the goal of this dissertation is to design a local scheduling policy, that is fair, and takes into account the integrated effect of various components of a node of distributed system

This research proposes an **Integrated Scheduling** algorithm for local scheduling in distributed systems The algorithm uses the arrival time stamp of the process in the system to schedule the process in the various components of the workstation The performance of this algorithm is studied for *Network Of WorkStation (NOW)* and *Client Server Model* Most of the distributed systems now a days have some support for load balancing So the performance of the proposed Integrated Scheduling is studied in the presence of load sharing also

The experimental results obtained show that the proposed algorithm is more fair and performs better for I/O bound jobs as compared to conventional scheduling